February 2001

Kyrgyzstan

Although Kyrgyzstan does not have significant reserves of petroleum and natural gas like its Central Asian neighbors, the country has great potential for hydroelectric power generation.

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GENERAL BACKGROUND

After seven decades of Soviet rule, Kyrgyzstan emerged as an independent state with the collapse of the Soviet Union in 1991. A small, mountainous country with a predominantly agricultural economy, Kyrgyzstan has been the most progressive country in Central Asia in enacting market reforms, selling off state-owned enterprises, and adopting democratic principles.

Despite some progress, Kyrgyzstan remains one of the poorest countries of the former Soviet Union. Kyrgyzstan's economy contracted sharply in the early 1990s, and while foreign assistance played a substantial role in the country's economic turnaround in the mid-1990s, Kyrgyzstan suffered severe economic aftershocks from the August 1998 financial crisis in Russia. The Kyrgyz government has enacted a number of measures to combat the country's economic problems, including efforts to stabilize rampant inflation, boost stagnant industrial production, and stimulate growth. In 2000, Kyrgyzstan's inflation rate was reduced to a manageable 9.5% (down from 39.9% in 1999) and its GDP grew 5.6% as industrial production expanded 8.6% compared to 1999. Still, the country's nominal GDP in 2000 was just $1.2 billion, giving the country's 4.9 million people a per capita annual income of approximately $240.

Kyrgyz President Askar Akayev, who has been praised by the West for his market reforms, is beginning to lose favor with the international community due to the appearance that he is backsliding on the country's commitment to democracy. President Akayev was re-elected to a third term in office in October 2000 with 74% of the popular vote in an election in which the main opposition candidates were prevented from running. International organizations have expressed concern that Akayev is becoming more authoritarian, tarnishing Kyrgyzstan's reputation as the most liberal country in Central Asia.

In the energy sector, Kyrgyzstan's lack of oil and gas reserves has left the country dependent on imports for its energy supplies, particularly natural gas from Uzbekistan. Yet, with an abundance of mountain rivers, Kyrgyzstan has significant hydroelectric potential, and with sufficient capital investment, Kyrgyzstan may be able to harness more power to meet the country's energy needs. In July 2000, the World Bank approved a $5-million credit to Kyrgyzstan under a technical assistance project to reform the country's fuel and energy sector, strengthen the financial position of Kyrgyzgaz, the state natural gas joint-stock company, and purchase necessary equipment, such as gas meters and spare parts.

OIL

Kyrgystan is not endowed with large-scale oil reserves like its northern neighbor, Kazakhstan. With estimated reserves of only 40 million barrels, Kyrgyzstan is reliant on imports to meet domestic supply. Kyrgyzstan contains seven developed oil fields and two oil/gas fields, but due to the country's mountainous topography, extraction is difficult, and water encroachment means that recovery rates are low. In 2000, Kyrgyzstan produced an estimated 4,400 barrels per day (bbl/d) of oil. Although the country's oil consumption has declined sharply since 1992, when Kyrgyzstan consumed 32,500 bbl/d, Kyrgyzstan's estimated oil consumption in 2000 of 11,000 bbl/d still required imported supplies to meet domestic demand.

In November 2000, a team of specialists, who conducted an oilfield survey for the Kyrgyz government, forecast that Kyrgyzstan soon could supply itself with enough oil to meet its domestic needs. Oil reserves in the Fergana Valley are estimated at 100 million tons (over 700 million barrels), while 200-300 million tons (1.5-2.2 billion barrels) are thought to be deposited in the Chuy, Alay, Issyk-Kul, and At-Bashi depressions. Previously, Kyrgyzstan did not need to consider drilling in these deposits because neighboring countries kept up a steady supply of oil. Since independence, petroleum products and natural gas have featured significantly among Kyrgyzstan's imports, and in part because Kazakhstan, Russia, and Uzbekistan are seeking to export their oil to Western markets for hard currency, Kyrgyzstan's suppliers are not as reliable as in the past.

Kyrgyzstan is looking to increase its oil production, with the government planning to start intensive extraction of oil and gas in 5-6 years. Kyrgyzstan already is planning to drill the first well under this plan, perhaps as early as spring 2001. Due to the considerable costs (up to $120,000 to drill one well), Kyrgyzstan is starting to seek funds from multilateral development banks and foreign investors to increase production; already, in 1998, a Netherlands-Kyrgyz joint venture began oil and gas prospecting.

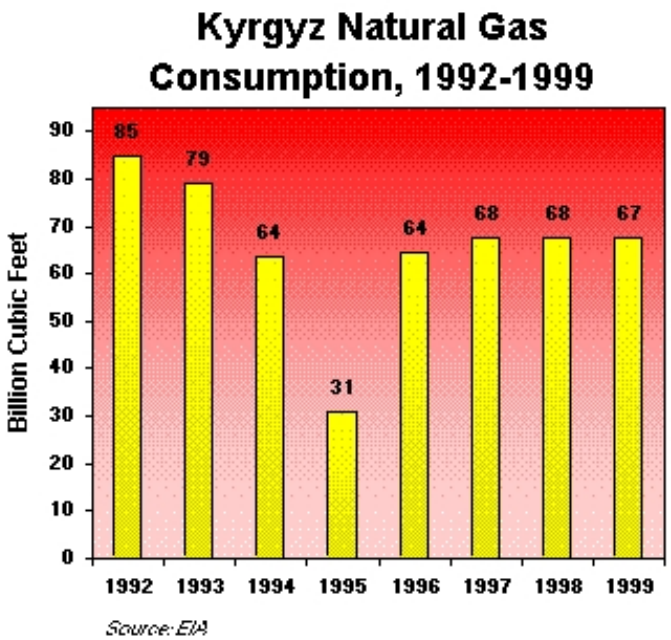
Refining

Kyrgyzstan has one crude oil refinery in Dzhalal-abad, about 150 miles south of Bishkek. The refinery, which was built in 1997, is run by the Kyrgyz Petroleum Company, a joint venture between Kyrgyzneftegaz, the country's state-owned oil company, and Petrofac Resources International Ltd. (U.K.), which bought its share from Canadian-based Kyrgoil in June 2000. The 10,000-bbl/d-capacity refinery produces heavy fuel, diesel, and gasoline, but it has been hamstrung by difficulties in getting reliable supplies of crude oil from neighboring countries, especially Kazakhstan, amid the region's economic and political disorder.

NATURAL GAS

Kyrgyzstan is heavily reliant on gas imports to meet domestic consumption requirements (67 billion cubic feet (Bcf) in 1999, mainly from Uzbekistan). Kyrgyzstan's estimated natural gas reserves of 200 Bcf are difficult to recover, and the money and infrastructure to produce it are lacking. Despite this, Kyrgyzstan did produce its first gas (0.35 Bcf) in 1999.

Since Uzbekistan began charging higher rates for its natural gas in the mid-1990s, Kyrgyzstan has fallen into payment arrears, and Uzbekistan periodically has cut off gas to Kyrgyzstan in response. While much of Kyrgyzstan's electricity is generated by hydropower in the warmer months of the year, natural gas is the primary fuel used in heating Kyrgyz cities and villages, as well as in electricity generation during winter. Thus, winter supply disruptions to Kyrgyzstan have resulted in blackouts and heating shortages.



Kyrgyz and Uzbek officials have negotiated several barter deals to exchange Kyrgyz electricity and goods for Uzbek gas, but these deals have often fallen through. In October 2000, officials from both countries reached an agreement whereby Kyrgyzstan will cover 50% of the payment for gas in hard currency (and the rest in kind) in connection with the Uzbek debt to Kyrgyzstan for electricity supplies. While the Kyrgyz side will receive the gas it needs, Kyrgyzstan will supply Uzbekistan with electricity, as well as water for the upcoming agricultural season.

On December 25, 2000, Uzbekistan cut off gas supplies to Kyrgyzstan due to slow repayment of its gas debt, which at the beginning of December 2000 stood at $1.6 million. Uzbekistan had requested at the beginning of December

that the Kyrgyz government speed up payment of overdue debts--it was estimated that Kyrgyzstan had not paid for almost 33% of the gas it had already received. While the supply of gas resumed several days later, in late January 2001 it was cut off again, this time due to an accident on a gas pipeline in Uzbekistan's Bukhara region caused by the severe cold weather. Nonetheless, the disruption left Kyrgyzstan short of gas to provide adequate heat and power to its citizens.

As a result of Kyrgyzstan's vulnerability to supply disruptions from Uzbekistan, the Kyrgyz government intends to start using alternative natural gas suppliers. Talks with Russia's Gazprom and Itera on supplying natural gas from Turkmenistan via the existing gas pipeline through Uzbekistan are set to begin in mid-February 2001. Construction of a second branch of the pipeline was begun during the Soviet era, but was stopped due to a lack of funds, although only $16 million is needed to finish construction. In addition, the Kyrgyz government is negotiating with Kazakh and Russian authorities about the continuation of construction of the gas pipeline from Russia to Kyrgyzstan. Completing the pipeline, whose construction was halted in 1991, would require $60 million.

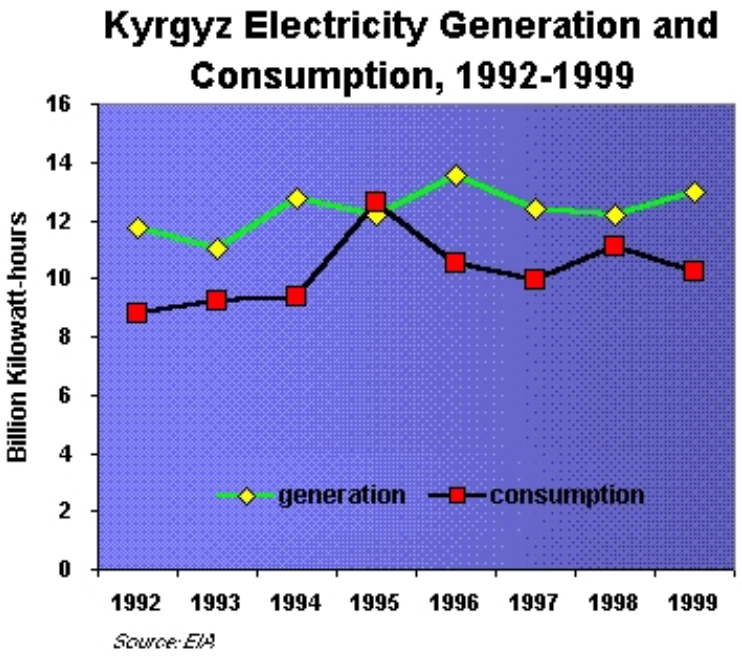
COAL

Since 1992, when Kyrgyzstan consumed 2.73 million short tons (Mmst) of coal, the country's coal consumption has plummeted. In 1999, Kyrgyz coal consumption was 1.22 Mmst--a 55% drop that would have been even more dramatic if consumption had not rebounded after it fell to just 0.82 Mmst in 1997. Kyrgyzstan's coal production has dropped even more precipitously since independence and the end of Soviet subsidies to the Kyrgyz coal industry. From a 1992 level of 2.37 Mmst, Kyrgyz coal production declined to 0.46 Mmst in 1999, making Kyrgyzstan a net coal importer.

A 1999 report for Kyrgyzstan's Ministry of Foreign Trade and Industry suggested that the country could overcome its coal deficit by exploiting the Kara-Keche deposit, one of Kyrgyzstan's 70 coal deposits. Yet, while the Kara-Keche deposit would yield high-quality coal, high extraction costs and a lack of equipment have hindered development of the deposit. Analysts have estimated the cost of developing the Kara-Keche deposit at $52 million, making it unlikely the Kyrgyz government will undertake the project unless it can attract sufficient foreign investment.

ELECTRICITY

Kyrgyzstan's electric power industry is capable of meeting the country's domestic electricity needs while providing surplus electricity for export. Kyrgyzstan has two major electric power plants, a 1.2-gigawatt (GW) hydropower plant at Toktogul, and a 0.76-GW thermal plant at Bishkek, with plans for a major 6.8-GW hydropower station to be built by 2010.



In 1999, Kyrgyzstan generated 13.0 billion kilowatt-hours (Bkwh) of electricity--93% of which was hydroelectric--while the country consumed only 10.2 Bkwh of electricity. Kyrgzstan exports electricity to both Kazakhstan and Uzbekistan in exchange for fuel oil and gas, respectively. In June 2000, the head of the heating engineering service under the Kyrgyzenergo joint-stock company (Kyrgyzstan's state-run electricity utility) said that both countries have failed to live up to their obligations. He noted that Kyrgyzstan supplied Uzbekistan with 0.74 Bkwh of electricity, but did not receive the full 40,000 tons of fuel oil from Uzbekistan.

Additionally, he said that Kazakhstan had not delivered the full 362,500 Mmst of coal to the Bishkek thermal plant in exchange for the 0.58 Bkwh that Kyrgyzenergo supplies Kazakhstan in summer. In total, Uzbekistan was to receive 1.32 Bkwh of electricity from Kyrgyzstan in 2000 and to supply 0.6 billion cubic meters (21.2 Bcf) of natural gas and 60,000 tons of fuel oil to Kyrgyzenergo.

With Kyrgyz domestic electricity demand increasing in recent years, occasional system failures are becoming more commonplace. Seasonal hydroelectric power that is readily available in spring and summer is replaced by thermal power in winter, and with irregular gas supplies from Uzbekistan, Kyrgyzstan has embarked on an effort to shore up

its power system. In July 2000, Kyrgyz authorities opened the new Ala-Archa substation on the outskirts of Bishkek. The $11-million substation, which received substantial funding from the Asian Development Bank, was intended to enhance the existing electricity grid in the southwestern and western areas of Bishkek, as well as provide an uninterrupted supply of electricity to consumers in Bishkek and northern Kyrgyzstan.

The power infrastructure outside of the capital is deteriorating, resulting in a high rate of line losses, but Kyrgyzstan lacks the funds necessary for maintenance and repairs. A lack of transmission-related equipment and inadequate pricing and cost recovery have contributed to the problems in the power sector. An analysis of electricity rates show that costs have risen twelve-fold, and while Kyrgyzenergo has submitted to the Kyrgyz government a proposal to raise electricity tariffs to pay for upgrades to the infrastructure, already about 80% of Bishkek residents are not able to pay because of the previous rate increases.

Hydropower

Kyrgyzstan's abundant water resources give it significant hydroelectric potential. The energy potential of Kyrgyzstan's mountain rivers is estimated at 163 Bkwh per year, of which only about 10% is currently exploited. Hydroelectric energy meets approximately 20% of Kyrgyzstan's primary energy requirements and accounts for nearly 20% of its total exports. With rapidly growing energy demand in neighboring Asian countries, Kyrgyzstan's hydroelectric power potential will likely become more attractive to foreign investors.

In May 2000, Turkish construction companies Entes and Kanalet signed a protocol of intent with Kyrgyzstan on construction of a hydroelectric station (Kambar-Atinskaya Hydroelectric Station-2) on the Naryn River. The project will require investment of up to $1 billion, of which the two Turkish firms are prepared to invest $230 million. Work on the station, which began during the Soviet era but was halted in the early 1990s due to a lack of funds, is 30% complete.

Since 1997, the World Bank has been involved in financing the modernization of Kyrgyzstan's hydropower sector. Four hydropower plants have been built within the framework of the $90-million World Bank program to upgrade the sector. In October 2000, Kyrgyzstan began operating a 0.2-Bkwh-capacity hydropower station in the north of the country. The $11-million station, in which Kyrgyzenergo invested $1 million, will generate electricity for the northen part of the country and for Bishkek.

Privatization

Kyrgyzenergo, which is state-owned and holds a monopoly on Kyrgyzstan's power sector, is set to be restructured and privatized. Kyrgyzstan is to start privatizing energy companies in 2001, according to Anatoly Makarov, first deputy CEO of the committee for the management of state property. As part of a denationalization program, a number of electricity networks were separated from Kyrgyzenergo in mid-January 2001 and four grid companies were set up based on these networks.

Kyrgyzstan plans to announce an international tender for the privatization of the grid company Severelektro, which unites the electricity distribution networks of the three northern regions of the country. Makarov said that energy companies from the U.S., France, the U.K., and Germany that already have experience in Eastern Europe and the Commonwealth of Independent States will take part in the tender. Funds received from the privatization of Severelektro will be used to repair and reconstruct power grids in the country.

However, Prime Minister Kurmanbek Bakiyev, who took office in January 2001, has signaled his intention to fight the privatization unless his government has sufficient time to study all the details of the restructuring process. The state has an 80.5% share of Kyrgyzenergo and a 15% share is fixed in the ownership of the Kyrgyz Social Fund and company employees. The State Property Committee is planning to sell the remaining 4.5% at auction. Kyrgyzenergo's assets include 17 hydroelectric stations and two thermal electric stations in Kyrgyzstan. In June 2000, former Prime Minister Amangeldi Muraliyev said in an interview to journalists that the large Toktogul hydropower station would remain under state control even after the structural reorganizations were carried out in the power engineering sector.

COUNTRY OVERVIEW

President: Askar Akayev (re-elected to a third, five-year term on Oct. 29, 2000)
Prime Minister: Kurmanbek Bakiyev (since January 2001)
Independence: August 31, 1991 (from Soviet Union)
Population (7/00E): 4.9 million
Location/Size: Central Asia/123,269 sq. miles, slightly smaller than South Dakota
Major Cities: Bishkek (capital), Osh
Languages: Kyrgyz, Russian (both official)
Ethnic Groups: Kyrgyz (52.4%), Russian (18%), Uzbek (12.9%), Ukrainian (2.5%), German (2.4%), other (11.8%)

Religions: Sunni Muslim (75%), Russian Orthodox (20%), other (5%)

ECONOMIC OVERVIEW

Currency: Som (introduced May 10, 1993)
Commercial Exchange Rate (1/5/01): US$1 = 48.30 soms
Nominal Gross Domestic Product (GDP) (2000E): $1.2 billion; **(2001E):** $1.3 billion
Real GDP Growth Rate (2000E): 5.6%; **(2001E):** 5.1%
Inflation Rate (Change in Consumer Prices, Dec. 1999 - Dec. 2000E): 9.5%; **(2001E):** 9.5%
Official Unemployment Rate (2000E): 3.2%; **(2001E):** 3.3%
Current Account Balance (2000E): -$81 million; **(2001E):** -$108 million
Major Trading Partners: Germany, Russia, Kazakhstan, Uzbekistan, China
Merchandise Exports (2000E): $714 million; **(2001E):** $771 million
Merchandise Imports (2000E): $694 million; **(2001E):** $729 million
Merchandise Trade Balance (2000E): $20 million; **(2001E):** $42 million
Major Export Products: cotton, wool, meat, tobacco, gold, mercury, uranium, hydropower, machinery, shoes
Major Import Products: oil and gas, machinery and equipment, foodstuffs
Foreign Exchange Reserves (Nov. 2000E): $235 million
External Debt (2000E): $1.2 billion

ENERGY OVERVIEW

Minister of Foreign Trade and Industry: Arzymat Sulaimankulov
Minister of Agriculture and Water Resources: Alexander Kostyuk
Proven Oil Reserves (1/1/01E): 40 million barrels
Oil Production (2000E): 4,400 barrels per day (bbl/d), 96% of which is crude
Oil Consumption (2000E): 11,000 bbl/d
Natural Gas Reserves (1/1/01E): 200 billion cubic feet (Bcf)
Natural Gas Production (1999E): 0.35 Bcf
Natural Gas Consumption (1999E): 67.5 Bcf
Coal Reserves (1999E): 895 million short tons (Mmst)
Coal Production (1999E): 0.46 Mmst
Coal Consumption (1999E): 1.22 Mmst
Electricity Generation Capacity (1999E): 3.8 gigawatts, 78% of which is hydropower
Electricity Generation (1999E): 13.0 billion kilowatt-hours (Bkwh), of which 93% (12.1 Bkwh) was hydroelectric
Electricity Consumption (1999E): 10.2 Bkwh
Net Electricity Exports (1999E): 2.8 Bkwh

ENVIRONMENTAL OVERVIEW

Minister of Ecology & Emergency Situations: Ratbek Eshmambetov
Total Energy Consumption (1999E): 0.22 quadrillion Btu* (0.06% of world total energy consumption)
Energy-Related Carbon Emissions (1999E): 2.04 million metric tons of carbon (0.03% of world carbon emissions)
Per Capita Energy Consumption (1999E): 46.1 million Btu (vs U.S. value of 355.9 million Btu)
Per Capita Carbon Emissions (1999E): 0.4 metric tons of carbon (vs U.S. value of 5.6 metric tons of carbon)
Energy Intensity (1999E): 63,821 Btu/ $1990 (vs U.S. value of 12,638 Btu/ $1990)**
Carbon Intensity (1999E): 0.58 metric tons of carbon/thousand $1990 (vs U.S. value of 0.20 metric tons/thousand $1990)**
Sectoral Share of Energy Consumption (1997E): Industrial (59.4%), Transportation (23.6%), Residential (17.0%)
Sectoral Share of Carbon Emissions (1997E): Industrial (59.6%), Transportation (34.4%), Residential (5.9%)
Fuel Share of Energy Consumption (1999E): Natural Gas (31.1%), Oil (12.9%), Coal (8.4%)
Fuel Share of Carbon Emissions (1998E): Natural Gas (49.2%), Oil (27.7%), Coal (23.1%)
Renewable Energy Consumption (1997E): 116 trillion Btu* (9% decrease from 1996)
Number of People per Motor Vehicle (1997): 31 (vs U.S. value of 1.3)
Status in Climate Change Negotiations: Ratified the United Nations Framework Convention on Climate Change on May 25, 2000. Not a signatory to the Kyoto Protocol.
Major Environmental Issues: Water pollution; many people get their water directly from contaminated streams and wells; as a result, water-borne diseases are prevalent; increasing soil salinity from faulty irrigation practices
Major International Environmental Agreements: A party to Conventions on Biodiversity, Desertification and Hazardous Wastes.

* The total energy consumption statistic includes petroleum, dry natural gas, coal, net hydro, nuclear, geothermal, solar and wind electric power. The renewable energy consumption statistic is based on International Energy Agency (IEA) data and includes hydropower, solar, wind, tide, geothermal, solid biomass and animal products, biomass gas and liquids, industrial and municipal wastes. Sectoral shares of energy consumption and carbon emissions are also

based on IEA data.
**GDP based on EIA International Energy Annual 1998

ENERGY INDUSTRY
Organization: Kyrgyzneftegaz (oil and gas production); Kyrgyznefteprodukt (petroleum products distribution); Kyrgyzgaz (natural gas distribution); Kyrgyzenergo (electric power generation, transmission, and distribution)
Refineries: Dzhalal-abad (10,000 bbl/d)
Power Stations (Type) (Capacity): Toktogul (Hydro) (1.2 gigawatts); Bishkek (Thermal) (0.76 gigawatts)

Sources for this report include: CIA World Factbook, U.S. Department of Commerce's Business Information Service for the Newly Independent States (BISNIS), Energy Information Administration, Interfax Weekly Petroleum Report, PlanEcon, Radio Free Europe/Radio Liberty, U.S. Department of State, WEFA Eurasian Economic Outlook, as well as other research and news reports.

Links

For more information from EIA on Kyrgyzstan, please see:
EIA - Country Information on Kyrgyzstan

Links to other U.S. government sites:
2000 CIA World Factbook - Kyrgyzstan
U.S. International Trade Administration, Energy Division
U.S. Department of Commerce Country Commercial Guide: Kyrgyzstan
U.S. Department of Commerce Trade Compliance Center: Market Access Information
BISNIS-U.S. Department of Commerce's Business Information Service for the Newly Independent States
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File last modified: February 26, 2001

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